

Vermont Payment for Ecosystem Services and Soil Health Working Group

Summary of Meeting #21: February 1, 2022

More detailed information, including presentation slides and the meeting recording can be found at <https://agriculture.vermont.gov/pes>.

Introduction

The Payment for Ecosystem Services (PES) and Soil Health Working Group held its twenty-first meeting on February 1, 2022. The objectives of the meeting were for the group to review approaches to evaluation, receive updates on program design considerations, debrief the presentation with the California Healthy Soils Program from the previous meeting, and receive other updates from the University of Vermont (UVM) technical team.

Summary of discussion

Taylor Ricketts and Ben Dube led a review of their valuation study of ecosystem services under Task 5 of their scope of work. Their remarks focused on comments they had received on low values for flood mitigation from their draft report. A key pointer was that the study focuses on the ecosystem services that arise from *soil health* interventions. While soil health interventions are intuitively useful for soil carbon and phosphorus loss, they are not particularly effective for flood mitigation, which results in the generally lower estimates. Other interventions (e.g., floodplain restoration or revegetation) may be better targeted at flood mitigation. When thinking about broadening its approaches, however, Taylor Ricketts recommended the Working Group be clear about the distinction between whole farm approaches, 'bundling' interventions (beyond just soil health), and bundling of ecosystem services (such soil carbon and flood mitigation).

Several comments questioned the focus on Irene-scale storms, as opposed to more frequent smaller storms, in valuations of flood risk. Ben Dube shared that the decision was largely based on the availability of data. The research team relied on FEMA disbursements to towns (which are made during larger storms) in order to estimate damages to infrastructure. He shared that there were other ways to capture that data, particularly if researchers were able to access unredacted flood insurance claims data.

Key feedback from the Working Group to the researchers included revising the executive summary to be clear about the research's assumptions and its potential uses and limitations, incorporating probability distributions into revisions for modelling flood mitigation, and looking into damages to farmers for lost crops as a result of flood events. The Working Group also highlighted regional water cycling and drought and fire prevention, the effects of composting and other practices on soil carbon tracking and accounting, the effects of ecosystem service valuations on crop resilience, and the research team's methodology for valuating phosphorus loss as points to consider moving forward and discuss at future meetings.

Afterward, Jon Winsten shared a review of program design considerations discussed to date. He reviewed the advantages and disadvantages of practice-based and performance-based programs and

highlighted quantification of outcomes, eligibility, payment structure, and monitoring and verification as key design issues. Slides from his presentation are available at <https://agriculture.vermont.gov/pes>.

The Working Group also shared insights from the California Healthy Soils Program presentation from the previous meeting. Members noted the adaptive nature of the program (taking public comment regularly), the inclusion of performance-based incentives through demonstration projects, and the simplicity of the approach rather than striving for perfection. A lingering question was the ways in which the program avoided duplication with NRCS payments, and whether a Vermont program would be an alternative to NRCS' program.

Alissa White shared updates from the technical team. She shared that the team is currently focused on Tasks 3 (farmer payment level study and stakeholder engagement), 4 (cost of soil health practices spreadsheet), 7 (whole farm approaches to measuring ecosystem services), and 8 (program design). On Task 3, Noah El-Naboulsi updated the Working Group that the technical team decided to focus on one-on-one interviews in order to determine 'willingness to accept' payment levels from farmers. The researchers will therefore focus their online survey on addressing important explanatory variables. The team will be sharing drafts of the survey and the interview protocol in the coming weeks and issued a last call to Working Group members for input on the survey. Working Group members may reach out to Nour.El-Naboulsi@uvm.edu to provide input.

The meeting was adjourned at 2 PM.

Links shared during discussion

1. <https://www.theguardian.com/commentisfree/2022/jan/26/carbon-offsetting-environmental-collapse-carbon-land-grab>
2. <https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/soils/health/mgmt/?cid=stelprdb1257753>
3. https://www.wildfarmalliance.org/biodiversity_continuum_chart
4. <https://farmraise.com/>
5. [https://stormwater.pca.state.mn.us/index.php?title=Sediment_control_practices_-_Check_dams_\(ditch_checks,_ditch_dikes\)](https://stormwater.pca.state.mn.us/index.php?title=Sediment_control_practices_-_Check_dams_(ditch_checks,_ditch_dikes))